

## The PREFACE.

*What the things are I observ'd, the following descriptions will manifest; in brief, they were either exceeding small Bodies, or exceeding small Pores, or exceeding small Motions, some of each of which the Reader will find in the following Notes, and such, as I presume, (many of them at least) will be new, and perhaps not less strange: Some specimen of each of which Heads the Reader will find in the subsequent delineations, and indeed of some more then I was willing there should be; which was occasioned by my first Intentions to print a much greater number then I have since found time to compleat. Of such therefore as I had, I selected only some few of every Head, which for some particulars seem'd most observable, rejecting the rest as superfluous to the present Design.*

*What each of the delineated Subjects are, the following descriptions annexed to each will inform, of which I shall here, only once for all, add, That in divers of them the Gravers have pretty well follow'd my directions and draughts; and that in making of them, I endeavour'd (as far as I was able) first to discover the true appearance, and next to make a plain representation of it. This I mention the rather, because of these kind of Objects there is much more difficulty to discover the true shape, then of those visible to the naked eye, the same Object seeming quite differing, in one position to the Light, from what it really is, and may be discover'd in another. And therefore I never began to make any draught before by many examinations in several lights, and in several positions to those lights, I had discover'd the true form. For it is exceeding difficult in some Objects, to distinguish between a prominency and a depression, between a shadow and a black stain, or a reflection and a whiteness in the colour. Besides, the transparency of most Objects renders them yet much more difficult then if they were opacous. The Eyes of a Fly in one kind of light appear almost like a Lattice, drill'd through with abundance of small holes; which probably may be the Reason, why the Ingenious Dr. Power seems to suppose them such. In the Sunshine they look like a Surface cover'd with golden Nails; in another posture, like a Surface cover'd with Pyramids; in another with Cones; and in other postures of quite other shapes; but that which exhibits the best, is the Light collected on the Object, by those means I have already describ'd.*

*And*

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*And this was undertaken in prosecution of the*  
*AL SOCIETY has propos'd to it self. For the M*  
*ving before their eyes so many fatal Instances of the error*  
*the greatest part of mankind has so long wandred, b*  
*strength of humane Reason alone, have begun*  
*potheses by sense, as Seamen do their dead R*  
*Observations; and to this purpose it has been their p*  
*large & strengthen the Senses by Medicine, and*  
*ments as are proper for their particular works. By*  
*reason to suspect, that those effects of Bodies, which h*  
*buted to Qualities, and those confess'd to be occ*  
*small Machines of Nature, which are not to be dis*  
*seeming the meer products of Motion, Figure, and*  
*Natural Textures, which some call the Plastick*  
*Looms, which a greater perfection of Opticks may*  
*Glasses: so as now they are no more puzzled about th*  
*conceive, how Tapestry or flowred Stuffs are wove*  
*Inquiries they intend to be the Pleasure of Contemp*  
*all, the ease and dispatch of the labours of mens b*  
*lect no opportunity to bring all the rare things of Re*  
*compass of their knowledge and practice. But they sti*  
*useful Informations to arise from common things,*  
*their most ordinary operations upon them. They do*  
*ments of meer light and theory; but they princip*  
*Applications will improve and facilitate the pres*  
*And though some men, who are perhaps taken up at*  
*poyments, are pleas'd to censure their proceedings,*  
*fruits of their first three years, wherein they have a*  
*Society in Europe can for a much larger space of*  
*dertakings as theirs do commonly, meet with small*  
*men are generally rather taken with the plausible*  
*real and the solid part of Philosophy; yet by the good*  
*tion, in an Age of all others the most inquisitive, they*  
*contribution and presence of very many of the chief*

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